same direction as the chemically produced difference of potential.

This treatment of the rise and fall of potential enables the student to see in a concrete way the behavior of electrical pressures in a cell and gives him more to think about and to work with in his future problems in potentials than a mathematical equation.

THE CLIMBING MONKEY.

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L'Astronomie, in its issue for July, 1917, presents this problem: To one end of a rope, passing over a fixed pulley, a monkey is clinging, while his equal counterpoise is fastened to the other. The monkey now begins to climb up his end of the rope. What happens to the weight at the other end? Does it go up or down or remain stationary?

The weight remains stationary, because whatever the monkey does he cannot change his weight and that is balanced by the counterpoise. Neither a higher or lower position, nor motion of any kind affect weight. Jerky climbing up or down, which introduces acceleration, can have only a passing effect on the counterpoise, because the monkey's acceleration is instantly met by the contrary acceleration of the balancing weight. If the monkey should let go of the rope, drop some distance and catch hold again, the counterpoise would also drop the same distance, but would again become suddenly stationary like the monkey himself at the moment. If he should climb up with sudden and jerky pulls, the weight would be raised momentarily at each effort.

Experiment proved the above explanation to be correct. The works of an old clock, weighing 240 grams, were arranged to wind up a string, which was drawn over the nine-inch pulley of a fine Atwood's machine and tied to an equal counterpoise. When the system was at rest, a thread holding the last wheel in the train was burned and the winding spring allowed to act. The clockwork mounted at the rate of eighty centimeters in a minute, but the counterpoise remained where it was, neither rising nor falling. The same was true when the clockwork descended. Occasional jerkiness caused by the sudden slipping of one turn of the string on another had only momentary effects on the counterpoise.